**Databases: Normalisation:**

**1NF**

Repair this:

|  |  |  |
| --- | --- | --- |
| **Customer ID** | **Name** | **Phone** |
| 111 | Fred Smith | 4566 3456 |
| 222 | Mary Jones | 4567 8900 |
| 333 | Tim Blogs | 3254 5676 |

|  |  |  |  |
| --- | --- | --- | --- |
| Customer ID | Given Name | Surname | Phone |
| 111 | Fred | Smith | 4566 3456 |
| 222 | Mary | Jones | 4567 8900 |
| 333 | Tim | Blogs | 3254 5676 |

Repair this:

|  |  |  |
| --- | --- | --- |
| **Product ID** | **Colour** | **Weight** |
| A345 | Red | 4kg |
| A568 | Blue | 300g |
| B695 | White | 1.5kg |

|  |  |  |
| --- | --- | --- |
| Product ID | Colour | Weight (kg) |
| A345 | Red | 4 |
| A568 | Blue | 0.3 |
| B695 | White | 1.5 |

Repair this:

|  |  |  |
| --- | --- | --- |
| **Album** | **Track** | **Length (minutes:seconds)** |
| Monster | 1 | 3:23 |
| Monster | 2 | 4:12 |
| Collapse into Now | 1 | 4:01 |

1. What is the problem above?

* Represents two types of data, doesn’t have units and it doesn’t have a primary key.

|  |  |  |
| --- | --- | --- |
| **Album** | **Track** | **Length (minutes:seconds)** |
| Monster | 1 | 3:23 |
| Monster | 2 | 4:12 |
| Collapse into Now | 1 | 4:01 |

Repair this:

|  |  |
| --- | --- |
| **Customer ID** | **Address** |
| 111 | 66 Lake Rd, Mentone, 3198 |
| 222 | 2/45 Richmond Lane, Richmond, 3121 |
| 333 | 135 Spring St, Melbourne, 3000 |

|  |  |  |  |
| --- | --- | --- | --- |
| Customer ID | Address | Suburb/City | Postcode |
| 111 | 66 Lake Road | Mentone | 2198 |
| 222 | 2/45 Richmond Lane | Richmond | 3121 |
| 333 | 135 Spring Street | Melbourne | 3000 |

Repair this:

|  |  |  |
| --- | --- | --- |
| **CUSTOMER** | | |
| **Customer ID** | **Name** | **Phone** |
| 111 | Fred Smith | 4566 3456 |
| 222 | Mary Jones | 4567 8900 (BH)  3456 2314 (AH) |
| 333 | Tim Blogs | 3254 5676  0402 697 495 |

|  |  |  |
| --- | --- | --- |
| **Customer** | | |
| Customer ID | First Name | Surname |
| 111 | Fred | Smith |
| 222 | Mary | Jones |
| 333 | Tim | Blogs |

|  |  |
| --- | --- |
| **Phone** | |
| Customer ID | Phone Number |
| 111 | 4566 3456 |
| 222 | 4567 8900 |
| 222 | 3456 2314 |
| 333 | 3254 5676 |
| 333 | 0402 697 495 |